

INTEGRALLY FIRED, LAMINATED
ELECTROMECHANICAL TRANSDUCING ELEMENT

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ABSTRACT OF THE DISCLOSURE

An integrally fired, laminated electromechanical transducing element, fabricated using an inexpensive electrode material and having the electrode characteristic at least equivalent to that of the Ag-Pd electrode, is disclosed. Especially, in the integrally fired, laminated electromechanical transducing element according to the invention, (A) the rigidity of the internal electrode layers is low and the internal stress generated at the time of expansion or contraction of the ceramic layers is small, (B) the antimigration characteristic is superior, (C) the charge loss is small, 10 the heat conductivity is high and the heat radiation characteristic is superior, and/or (D) the bonding strength between the ceramic layers and the electrode layers is high. The integrally fired, laminated electromechanical transducing element (1) according to the invention comprises, for example, an integrally fired laminate member fabricated by integrally firing a plurality of the ceramic layers (11) of piezoelectric ceramic or electrostrictive ceramic and the internal electrode layers (21, 22) interposed between the ceramic 15 layers (11). The main component of the internal electrode layers (21, 22) is a base metal having a rigidity of not more than 160 GPa.

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